

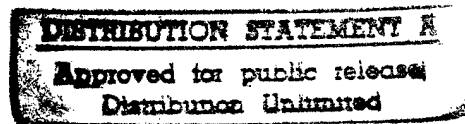
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21 February 1984

# Worldwide Report

EPIDEMIOLOGY



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21 February 1984

# WORLDWIDE REPORT

## EPIDEMIOLOGY

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AUSTRALIA

TWENTY-FOUR MENINDEE RESIDENTS SUFFER 'MOSQUITO FEVER'

Sydney THE SYDNEY MORNING HERALD in English 16 Jan 84 p 1

[Text] A plague of mosquitos which bred in stagnant pools left by last year's floodwaters, has led to an outbreak of fever among residents of Menindee, on the Darling River near Broken Hill.

Heavy rain has prevented the draining of a large pool 100 metres from Menindee's main street. But police say that if the rain keeps up, the breeding ponds will be flushed out and the problem alleviated.

Flash floods have left hundreds stranded in Queensland and cut roads in western NSW. While rain is likely to ease locally, a 95 km/h cyclone and torrential rain is moving on to north-western Queensland.

Twenty-four people including two babies under nine months have been hit by the fever, which robs its victims of energy and leaves them sweating and drowsy.

Senior Constable Harry Steele of Broken Hill said the fever was suspected to have been caused by the Ross River virus, named after a mosquito-carried disease which struck Northern Territory river settlements several years ago.

The NSW Health Commission is waiting on the results of blood tests on the Menindee 24. The commission's regional director at Dubbo, Mr Bob Taylor, said there was no certainty the fever was the Ross River virus, because chickens used to detect insect-carried diseases had so far shown no signs of it.

Two men who visited Menindee have been in hospital for several days in Broken Hill after developing the fever.

Sister Elizabeth Powter of the Uniting Church Medical Service at Menindee said two local residents and a Canberra visitor were the latest victims of the disease.

The visitor had developed the symptoms after returning to Canberra. "He rang me and he has had the symptoms for about two weeks, and can hardly use his hands," Sister Powter said.

She said people should not make unnecessary visits to Menindee.

She advised people to wear long-sleeve shirts and trousers, and to regularly apply repellants.

Some people who had developed the fever had been almost unable to walk, Sister Powter said.

CSO: 5400/4384



AUSTRALIA

MOSQUITO THREAT SPARKS \$4.8 MILLION ERADICATION PLAN

Canberra THE AUSTRALIAN in English 21-22 Jan 84 p 1

[Text] THREE cases of suspected Australian encephalitis--a lethal disease carried by mosquitoes--have been reported in the Murrumbidgee Irrigation Area of NSW.

The acting chief health officer of the NSW Department of Health, Dr Tony Adams, said last night if the cases were confirmed "we will hit the alarm buttons".

As many as 40 cases of Ross River fever, another disabling disease, are being reported daily by doctors in the area, where mosquitoes have reached plague proportions.

In 1974, an outbreak of Australian encephalities in the Griffith area of NSW resulted in a 20 per cent death rate.

The Commonwealth Health Department has begun a campaign against the aedes aegypti, or the domestic breeding mosquito, which can spread dengue fever.

More than 300 people will be sent to households above the 26th parallel (the northern half of Australia) to eliminate the mosquito in Western Australia, the Northern Territory and Queensland. The project will cost \$4.8 million.

CSO: 5400/4385

BRIEFS

DIARRHEA IN NETRAKONA--NETRAKONA, Dec. 15--Diarrhoea has broken out in Gouripur upazila. As many as three persons died of the disease in the upazila. The disease is spreading in different villages of the upazila. Besides, as many as seven persons died of the disease in Dhobaura upazila. Non-cthcialty as many 20 persons including infants died of the disease and about two hundred are suffering from the disease in the upazila. [Text] [Dhaka THE BANGLADESH TIMES in English 16 Dec 83 p 5]

STEPS AGAINST CHOLERA--JESSORE, Dec 17 (PID)--The Martial Law Administrator of Zone-E has taken proper preventive and curative measures against cholera outbreak in four upazilas in Barisal and one upazila in Patuakhali district. It has been reported that 2,820 persons were attacked by cholera of which 265 have died in those ares. Uzirpur, Mehendiganj), Jhalokathi and Kotwali upazilas of Barishal distriect and Dumki upazila of Patuakhali district were mainly affected by this disease. In some areas the disease broke out in epidemic form. Two army medical teams headed by Major M K Barna and Major Shamsul Huda have been working round the clock since December 5, 1983 providing necessary medical facilities including oral behydration dose, anti-cholera vocccination in the affected areas. They have so far covered 22 Upazilas of the affected districts providing necessary remdial as well as curative means to the public in general. Moreover 200 medical units formed by the respective civil surgeon of the district are working all over the affected areas providing medical treatment for the affected persons and preventive measures for the public in general. The disease is now under control through timely and proper step taken by the army medical team as well as civil medical units. The medical teams are still working in those area to check further outbreak. [Text] [Dhaka THE NEW NATION in English 18 Dec 83 p 2]

MANIKGANJ CHOLERA DEATHS--MANIKGANJ Dec 21--Cholera claimed 14 lives in Navagram union under Manikganj police station during last three days, according to Navagram Union Parishad source. The affected areas are Navagram, Dighulia, Baroil, Chhoto Ghior and Sorpai villages. Besides loss of 14 lives more than 150 persons have been attacked by the disease. Meanwhile, a group of people headed by Gazi Habibur Rahman Chairman, Navagram Union Parishad on Tuesday lodged a complaint to the Deputy Civil Surgeon, Manikganj about non-attendance of the medical officer at Navagram Government Dispensary for last one month. According to the complaint, anti-epidemic and anti-cholera drugs were not supplied from the dispensary at Navagram. Meanwhile the cholera situation in

other six upazilas of Manikganj sub division is no better. More than 322 persons died of cholera in Manikganj sub-division during last two months [Text] [Dhaka THE NEW NATION in English 22 Dec 83 pp 1, 8]

MUNSHIGANJ DIARRHEA OUTBREAK--Immediate medical help is needed for the people suffering from diarrhoeal diseases at different places under Srinagar and Lohajang Police Station of Munshiganj Sub-division. The disease has already claimed lives of a good number of people in the affected areas. If curative and preventive medicines are not made available to the people of the areas, the disease might break out in epidemic form, it is feared. It should be pointed out here that there is scarcity of pure drinking water in the areas. Local medical facility is inadequate to cope with the situation. There is also need for water purifying tablets for the people of the affected areas. [Text] [Dhaka THE BANGLADESH OBSERVER in English 21 Dec 83 p 16]

BRAHMANBARIA CHOLERA DEATHS--BRAHMANBARIA, Dec 22--Cholera claimed 17 lives and attacked 66 persons in Nabinagar Upazila within a week. The officials confirmed the deaths of 7 persons and attack of 40 persons. At last 6 persons were admitted into the Nobinagar Hospital from five villages today. The badly affected villages are Char Lapang, Bagdor, Durgapur, Chettra and Nabinagar. Medical teams have been working in the affected areas. Scarcity of pure drinking water prevails in the affected areas. [Text] [Dhaka THE NEW NATION in English 23 Dec 83 p 1]

MORE DIARRHEA CASES--MANIKGANJ Dec. 25--Strong diarrhoea so far claimed 14 lives in Navagram Union under Manikganj sadar police station during last four days from December 18. During the period more than 150 people were attacked by the disease in the area. The affected villages in Navagram Unions were Navagram Chhoto Ghtor Dighulia Gilondoo Ghusta Baroil and Sorpai. Anti-diarrhoea drugs are not available at Navagramil Union Government Dispensary. This has been gathered from a complaint lodged with the Deputy Civil Surgeon Manikganj on Tuesday December 20. A group of villagers headed by Mr Gazi Habibur Rahman Chairman of Navagram Union parishad lodged the complaint. [Text] [Dhaka THE BANGLADESH TIMES in English 25 Dec 83 p 2]

BRAHMANBARIA DIARRHEA STATISTICS--BRAHMANBARIA, Dec 28--With 25 more deaths in 38 villages diarrhoeal death toll rose to 125 in this subdivision over the past two months, competent sources say. Officials however, confirmed 50 deaths. Newly affected areas are Anandapur, Shyampur under Majlishpur union, Ulchapara under Ramurail union and Chhairunder Bashudev union. [Text] [Dhaka THE NEW NATION in English 29 Dec 83 p 1]

CHOLERA IN TARASH--SIRAJGANJ, Dec 30--Outbreak of cholera in Tarash upazila here claimed 17 lives between December 24 and 28. Meanwhile, a medical team has been constituted by the Civil Surgeon to look after the victims. It is learnt that during the period no medical staff of Tarash upazila was available. [Text] [Dhaka THE NEW NATION in English 31 Dec 83 p 1]

DIARRHEA, CHOLERA CASES--COMILLA, Jan 1--Cholera, dysentery, diarrhoea and other intesbinal diseases claimed 38 lives in the district within the last fortnight, according to an official source. But the figure would be larger

as it was unofficially learnt by this correspondent. A total of 412 persons were attacked during the period. The worst affected upazilas are Nabinagar and Barora where ten and eight persons died respectively. The disease also spreads in the town and its suburb claiming two lives within last three days in a house at Pirojpur village where five persons had been attacked. Even the senior consultant of medicine of the hospital has been attacked by diah-orrea from Friday night. [Excerpt] [Dhaka THE NEW NATION in English 3 Jan 84 p 2]

CSO: 5400/7075

## CAPE VERDE

### VACCINATIONS REACH MOST CHILDREN ON SAO VICENTE

Praia VOZ DO POVO in Portuguese 3 Dec 83 p 3

[Text] "The rates of vaccination coverage on the island of S. Vicente are higher than those prevailing in the underdeveloped countries." This statement was made to the VOZ DO POVO by Dr Luis Leite, coordinator of the First Course of the Expanded Vaccination Program.

An on-the-spot inquiry conducted in Mindelo from 15 to 23 November, which constituted a practical application of the knowledge acquired in the course, revealed that 93 percent of the children of S. Vicente have been duly vaccinated with BCG, 73 for measles, 82 for diphtheria, tetanus and whooping cough, and 60 for poliomyelitis.

Ninety-six percent of the children between the ages of one and three have the Mother-Child Protection (PMI) card, according to the statistical method used in estimating vaccination coverage and commended by the World Health Organization (OMS). The health delegate from Paria told us: "The inquiry provided the opportunity, on the one hand, to note that there was a high level of public participation and, on the other, that the vaccination rate was high as well."

The diseases with which the Expanded Vaccination Program (PAV) is concerned, the vaccines of the PAV, the use of the refrigeration cell, the programming of the PAV (stages of programming and professional programming), the method of evaluation and the question of epidemiological vigilance were the main topics dealt with during the course, in which 38 persons connected with the PMI/PF [expansion of PF unknown] infirmity cadres and second-year students from the nursing school of S. Vicente participated.

"We can say that the course was conducted in an atmosphere of proper discipline and we can state as well that much benefit was derived therefrom," Dr Luis Leite added. In the examination given earlier, only 13 percent of the participants answered more than 50 percent of the questions correctly, whereas in the final examination, 82 percent gave the correct answers to more than 50 percent of the questions.

The course, which was financed by the OMS, was administered by technicians of the ministry of Health and Social Affairs. Certificates were distributed

at the end of the course. We must make special mention of the support of the PMI in making its installations available.

The second PAV course will be given in this capital during the early months of next year and the closing session is to be presided over by the minister of Health and Social Affairs. It should be recalled that the first course was intended for the Barlavento area only.

8089

CSO: 5400/61

IMPACT OF PUBLIC HEALTH PROGRAMS IN 1983 CONSIDERED

Tegucigalpa LA TRIBUNA in Spanish 15 Dec 83 p 28

[Text] In 1983, the government invested 60 million lempiras in carrying out community health and preventive medicine programs on the basis of a successful plan, the results of which have been revealed by Gustavo Adolfo Corrales, director of public health.

The Ministry of Health took action in 1983 to hold in check the incidence and principal causes of sickness and death in the several regions of the country through ambitious projects for mass vaccinations.

According to Adolfo Corrales, as compared with figures for earlier years, evaluation of these projects shows that the incidence of diarrheic diseases has been reduced by 50 percent and deaths from them by 30 percent.

The official revealed that, for the first time, only three cases of poliomyelitis were found in the whole country; this represents a significant reduction, as in previous years up to 40 cases had been found.

There has been a marked tendency toward control of outbreaks of this pediatric illness, and the same thing has happened with measles, rabies and whooping cough, all ills that can be prevented through vaccination, he added.

As for tuberculosis, he pointed out that, while it has not been possible to eradicate it completely, success has been achieved in increasing the number of cases detected, especially in the subregions of Honduras, by 30 percent.

With regard to cases of malaria, he said that there had been substantial changes in the incidence of that disease, since formerly 20,000 cases a year were found and, in 1983, this figure was reduced to 200.

The government has developed intensive plans for the control of malaria in the Valley of Aguan, various regions of the Valley of Sula and also in La Mosquita, where this illness is found most frequently.

He indicated that, as of the end of the year, the Ministry of Health had trained 8,000 midwives, and it was believed that, by the end of the first semester of 1984, all these will have become professionally qualified.

In conclusion, he said that the budget reduction suffered by this government agency will not affect the community health and preventive medicine programs but, on the contrary, they will be increased in order to continue with the work in the following year.

HONDURAS

BRIEFS

OVER 30 CASES OF MENINGITIS--The Public Health authorities have been warned of the danger of an epidemic of meningitis, following the discovery of more than 30 cases in recent months. Medical sources confirm that the cases that have been reported indicate the possibility that an epidemic might break out at the regional level and warned that contagion could occur in crowds such as those found in stadiums, movie theaters and other centers. According to the doctors who reported the cases of meningitis, the danger of contagion is especially great for children; they called upon the health authorities to take the necessary measures. So far, the Ministry of Public Health's office of epidemiology has made no statement in the matter, perhaps because data are still being collected from the public and private hospitals in which the patients affected are being treated. [Text] [Tegucigalpa LA TRIBUNA in Spanish 17 Dec 83 p 48] 12336

CSO: 5400/2030



'ALARMING' INCIDENCE OF TB IN DURGAPUR REPORTED

Bombay THE TIMES OF INDIA in English 23 Dec 83 p 7

[Article by G. Y. Patel]

[Text] Dungarpur, December 22.

At least 40 per cent of the rural population in the predominantly tribal district of Dungarpur, in Rajasthan, suffers from tuberculosis, it is learnt.

According to Mr. Mohanlal Singh, president of the Sagwara tehsil panchayat, 50 per cent of Adivasi children suffer from TB. Of the 20,000 children between five and 14 years, who were examined, nearly 10,000 were found to be suffering from the disease, in many cases in an advanced stage. The diagnostic camp in Sagwara was organised under a World Health Organisation programme.

Ayurvedic Camp

Dr. G. L. Gupta, head of the TB department in the civil hospital here, says the detected cases constitute only the tip of the iceberg. On the basis of his experience, he could say, every fourth Adivasi in the district suffered from TB. The deputy health minister, Mrs. Kamla Bhil, admitted there was a very high incidence of the disease in the tribal districts of Dungarpur, Banswara and Udaipur.

An Ayurvedic diagnostic camp recently organised at Patol village in Banswara district, revealed that a large number of the villagers had TB. Dr. Gupta says the ratio of the population affected by TB in Dungarpur district is much higher than the national ratio which is 15 per 1,000 persons. It would perhaps turn out to be 200 per 1,000 persons in the district if a detailed survey was conducted by the authorities. But, unfortunately, no such effort has been made so far.

The health authorities fear that the incidence of the disease would increase with the passage of time for two reasons. First, the Adivasis are not medically conscious. Hardly one-fifth of the tribals affected by the disease come to hospital for treatment. And those who do report at a hospital hardly continue the treatment for the required time.

Secondly, there are no adequate transport facilities to enable patients to come to the hospital. The to and fro passenger fare from their villages to the hospital at Dungarpur or Banswara amounts to at least Rs. 10--a big amount for them. Besides, it will also cost them a day's wages. Many villages are not linked by state transport buses. There is not a single sanatorium in the district. The TB hospital has only two wards which can hardly accommodate 24 patients at a time. The hospital is not provided with an adequate quantity of the latest drugs.

#### Mobile Clinics

The residents of Dungarpur are also agitated at the location of the TB hospital situated in the heart of the city. Mr. Kanayyalal Gulla, president of the district Youth Congress (I), has threatened to launch an agitation if the hospital is not shifted to a site outside the city by the end of the year. Mrs. Kamla Bhil has, however, assured the citizens that the hospital would be shifted shortly.

Medical practitioners suggest that the government should immediately introduce mobile dispensaries to check the disease from spreading. The state government has accepted the need for a mobile unit but, as Mrs. Bhil says, the government has no finances to launch the project immediately. She wants Rajasthani businessmen settled in other states to help. She feels that it will not be difficult for affluent Rajasthani industrialists and voluntary organisations to construct a few sanatoria and provide medical facilities to the poor tribals in the backward district of Dungarpur.

CSO: 5400/7066

## INDONESIA

### BRIEFS

DENGUE IN IRIAN JAYA--Jakarta (JP)--Some 13 people including children last week died of muntaber epidemic (diarrhoea and vomiting) in the Irian Jaya capital of Jayapura, sources in that city said. ANTARA news agency quoted health officers as saying that muntaber incidences have been known in Jayapura regency since late last month just after Christmas. The sources said as quoted by ANTARA that eight people had already died before the health officers took care of them. According to the sources, muntaber has spread to a number of subdistricts in Jayapura regency, including South Jayapura, North Jayapura, Abepure and Sentani. [Excerpts] [BK251633 Jakarta JAKARTA POST in English 11 Jan 84 p 3 BK]

CSO: 5400/4386

STATISTICS, PROBLEMS CONCERNING WEST BANK ARAB DOCTORS DISCUSSED

Jerusalem AL-AWDAH in Arabic No 28, 26 Nov 83 pp 22-26

[Article by Basim Abu Sumayyah: "Picture of Real Situation of Physicians and Their Union"]

[Text] In the West Bank, with its relatively small area populated by 867,500 people, there are 494 general practitioners and specialists offering their curative services to nearly 75 percent of the population that is in dire and constant need of medical care.

The specialized physicians work in 17 fields, including ear, nose, throat, heart, orthopedic surgery, general medicine and other specializations.

By examining the list of specializations, it can be concluded that the number of practicing doctors in each specialization is insufficient and constitutes a very small percentage when compared with the number needed to provide medical care to the sector concerned. The age groups in this sector are as follows:-

- 0-4 years: This age group constitutes 17.9 percent of the population.
- 5-14 years: This group constitutes 27 percent of the population.
- 15-19: This group constitutes 13.5 percent of the population.
- age group 20-44 not given.
- 45 years and above: This group constitutes 15 percent of the population.

Following is a chart demonstrating the type of specialization and number of specialized doctors:

Nose, ear and throat: 4 doctors  
General surgery: 9 doctors.  
Psychology: 2 specialists.  
Internal medicine: 9 specialists.  
Pediatrics: 16 specialists.  
Brain and nerve surgery: 1.  
Anesthesiology: 2.  
Gynecology and obstetrics: 14.  
Orthopedics: 2.  
Orthopedic surgery: 1.

Public health: 4.  
 Digestive system: 1.  
 Urinary tract: 2.  
 Eye: 6.  
 Heart: 1.  
 Internal medicine and heart: 3.  
 Chest: 1.  
 Board as published: 1.

It is evident from the list of specialists that there are only 4 nose, ear and throat doctors and only 1 heart doctor to provide medical care to this large number of people, 1 specialist in chest diseases and 6 doctors to provide care for 1,735,000 eyes.

There is just one orthopedic surgeon to provide care for the bones of these thousands of people and there are only two urinary tract specialists.

It is noticed that there is a severe shortage of doctors specialized in difficult and sensitive diseases and that there are just 14 obstetricians and gynecologists. This number in itself is not high, but when compared with the number of doctors who specialize in "heavy" diseases, it is a high figure.

Following is a chart demonstrating the number of doctors in the West Bank:

	<u>Total</u>	<u>General Practitioner</u>	<u>Specialist</u>
1. Nablus	128	69	59
2. Ramallah	87	49	38
3. Hebron	57	38	19
4. Bethlehem	51	25	26
5. Tulkarm	41	26	18
6. Janin	36	23	13
7. Jerusalem	94	54	40
Grant Total	494	284	210
Temporary and Resident Doctors	250		

It is worth noting here that the West Bank's population structure is one that is in urgent need of constant medical care.

#### Doctors Union

The Doctors Union was founded in 1954 and established two offices in Amman and Jerusalem.

After the 1967 war, the union kept its offices in Jerusalem. Throughout the period from June 1967 until the present, the union avoided contacts with the new authority (the military administration). Moreover, no professional relationship has been established between the union and the Arab health departments operating under the canopy of the military administration.

Since 1967, four doctors have headed the union, the latest being Dr Samir Katibah. In March 1982, a new council was formed for the union's Executive Bureau. This council has subcommittees in the 7 districts of the West Bank, each committee formed through the election of 2 doctors to represent the district on the union's bureau, which is comprised of 14 members. A doctor is elected to the position of union secretary--a position now held by Dr Salah al-Bustami from Nabulus. The bureau is comprised of Dr Mundhir al-Sharif from Ramallah as deputy secretary, Dr Saba al-A'raj from Bethlehem as treasurer and of Dr 'Adnan 'Arafah, the Bureau Council's secretary, with the others as members.

The Bureau Council performs the task of following up on the doctors' daily affairs and of following up on the implementation of council resolutions. This task gives the union the image of an executive organization--a quality which the union has not yet gained in practice.

According to the law, the union is considered a liaison between the doctor (member) and the mother union in Amman. The union organizes an enrollment of doctors in its membership and performs other tasks, mostly in theory.

A total of 1,800 doctors have joined the union since its creation, excluding of course deceased doctors and doctors who have emigrated from the country.

The number of doctors registered in the West Bank union ranges from 650 to 700 doctors, 400 of whom are registered permanently and 250 registered temporarily. (Temporary registration does not entitle the doctor to practice the profession until he takes the comprehensive medical examination. This examination is given to determine the doctor's medical capability, and it was approved by the Jordanian Doctors Union in 1972. The Jordanian Medical Board is in charge of this examination at present.

There are 107 doctors included in the absorption program adopted by the union. We will discuss this program in more detail in another part of this article.

These doctors can be considered idle. Of the total number of the union members, 20 doctors can be considered completely unemployed.

There are six or seven doctors working in the Israeli health institutions. These are temporary members of the union.

According to the Doctors Union law and to the statements of the union circles concerned, this organization was founded to establish liaison between the doctors and the mother union in Amman and to follow up on the doctors' daily affairs and concerns. However, the relationship between these two sides is often unsound and can be described as a friendship that is neither warm nor strong.

Usually, issues disputed by the two sides are settled in the tribal manner based on keeping the bridge of relations open according to the principle of "patching things up" and appeasement and disregarding the excesses and mistakes, whatever their source.

The current situation of the medical sector confirms that this sector is standing on brittle and cracked grounds, thus making it easy for the process of infiltration of the medical circles. The current situation shows a serious drain in this profession, with many of the doctors emigrating to work in the Arab and other foreign countries and with some turning to work in spheres other than the field of medicine. In particular, a considerable number of doctors have refrained from returning to the West Bank after graduating from the European universities.

At a time when the number of medical graduates with B.S., M.S. and Ph. D. degrees is increasing, the percentage of such graduates returning to their country is decreasing considerably. This decrease is due to the fundamental problem from which the doctors sector suffers, namely the lack of work opportunities to absorb the new doctors who need a 12-month period of professional training. This group is included within the framework of residencies.

These doctors have to spend a 12-month training period in recognized hospitals under the supervision of specialists in the various fields of medicine. The medical sector has a surfeit of resident doctors, considering that there are 250 such doctors out of a total of 700 doctors constituting the entire membership of the Doctors General Union. The resident doctors, not to mention the absorption doctors and unemployed doctors, constitute one-third of the membership.

#### Absorption Doctors

On 3 June 1983, the Doctors Union Bureau in Jerusalem approved the doctors absorption program which seeks to help recently graduated doctors by finding them work in the clinics and hospitals of the charitable organizations, with the union paying such a doctor a monthly salary from its own Pension and Social Security Fund in order to encourage the doctor to stay in his country and improve his conditions gradually until he attains final stability by finding a permanent job.

The program also calls for establishing new medical work centers in the villages and in order to serve both the citizen and the doctor simultaneously.

The conditions for enrollment in this program require that the doctor be a registered member of the union in Jerusalem, that he acquire a permanent license to practice medicine, that he not be an employee of any other organization and that he not be previously included in the absorption program.

A doctor who has been a graduate for 3 or more years is given priority in enrolling in the program. The duration of the program is 2 years, renewable for two periods of 6 months each. During the program, the doctor is given a monthly recompense of 120 dinars, with no compensation or bonus paid upon completion of the program. The doctor is then licensed to open private practice, provided that this is not in conflict with the organization in which he works.

The absorption program does not include resident doctors and specialized doctors. A total of 107 doctors are benefiting from this program at present.

The program is an endeavor to eliminate the rampant unemployment in the doctors sector. But it is no more than a partial solution to the problem.

Efforts are currently under way in the union lobbies to include specialized doctors and resident doctors in the program, provided that a monthly recompense of 50 dinars be paid to the resident doctor and of 200 dinars to the specialized doctor for a period of 2 years only.

It is to be noted that a resident doctor does not enjoy the full rights of union membership until he completes the 12-month training period under the supervision of specialists. He can then practice the profession temporarily until he takes his comprehensive examination.

We can say that resident doctors are practically unemployed and that there are nearly 150 such doctors at present.

Usually, a resident doctor begins to look for work immediately upon graduating. Often, perhaps most often, a recently graduated doctor is compelled to wait for 6 months before he gets the opportunity to do his residency work.

As we have already noted, the number of graduating doctors is growing astronomically whereas employment opportunities are unavailable. The military administration has stopped appointments to most government jobs, and this has led to the accumulation of a large number of unemployed doctors. This sector is now suffering from the phenomenon of unemployment.

An ordinary person (concerned) can notice the unemployment in medical circles by visiting the clinics and hospitals of the charitable associations, both in the city and in the village.

But where does the resident doctor go upon completing his training period?

Answering this question, Dr Mundhir al-Sharif, the Doctors Union's deputy secretary, said:

The first step that such a doctor has to take is to look for work. The union cannot perform this task.

What is happening, adds Dr al-Sharif, is that government jobs are limited and there are no new jobs and no private medical establishments capable of absorbing this number of doctors. These conditions motivate the doctors to resort to the absorption program, with its limited capacity. In this case, the doctor's thoughts turn immediately to emigration or to work in other fields.

In 1977-78, the military administration issued a decree empowering the authorities to license any doctor they deem fit to practice. Doctors and specialists were appointed according to the disposition of the authorities without any consultation with the union, which does not recognize the degrees of the doctors appointed.



The military administration has the power to appoint or reject the appointment of doctors in the governmental medical establishments directly controlled by the military authorities. Moreover, the Doctors Union has a certain position vis-a-vis the appointment of doctors in government hospitals, and this position is based on the fact that even though these government hospitals, clinics or medical establishments offer medical care to the Arab citizens, they are under the control of the military administration. We have already pointed out that no relationship has been established between the union and the new administration since 1967.

#### Private Clinics

The first step doctors take after completing the training period (residency) is to begin looking, as most doctors do, for a good spot on a crowded street and in a building separated from the sidewalk by just a few steps to inaugurate the so-called "clinic."

Frequently, a doctor is prepared to spend a long time in the embraces of unemployment until he is lucky enough to find the right site for his clinic. His failure to do so may compel him to accept a less important site initially.

The doctor then begins receiving patients stumbling accidentally upon his clinic or led there by personal relations and, at times, by urgent need.

Upon passing the "new clinic's" threshold, the patient is received with smiles, words of welcome and medical and health posters hung on the walls. When he departs from the doctor's office, there are several possibilities regarding the patient's psychological reactions.

The final possibility is that the patient may not come out walking because the angel of death may have beaten the doctor before he examines the patient.

The private doctor charges the following fee for the medical examinations:

General practitioner: 500 shekels  
Specialist: 800-1,000 shekels.

The union law permits the general practitioner to charge 3 dinars while permitting the specialist to charge 5 dinars.

Some specialists charge a fee of 10 dinars and others charge 400-500 shekels, with both having the same qualification and specializing in the same branch. Some doctors insist on collecting the fee in Jordanian dinars.

The daily income of some doctors who have their private practice amounts to 300 dinars whereas the monthly income of a recently graduated doctor does not exceed 150 dinars.

There are about 15 doctors in Jerusalem who violate the union laws, and some doctors engage in unsound professional practices.

One of the practices that violate the union laws is the opening of clinics by new doctors. The text of the law deals with this issue specifically, stating: No doctor may open a clinic prior to obtaining a permanent license from the union and from the Ministry of Health.

But tens of doctors disregard this law and open their private clinics before obtaining the permit. These doctors exploit the fact that the union lacks the executive power to bring the contravening doctors to account and to sue them legally.

The union often disregards these violations in view of the general conditions prevailing in the West Bank. In addition to the issue of opening private clinics, the visit fee charged by doctors who have their private practice is not set in agreement with the union and is subject to the doctor's disposition, his seniority, his social status and his reputation among the patients.

This is where the flaw in the current relationship between the union and the member doctors originates.

What is surprising is that the flaw in the relations has almost become an ordinary manifestation and an indivisible part of our personality.

This being the case, there is no difference between the educated, the uneducated and the practicing doctor on how to deal with the issues. All that counts is to deal with them in a manner compatible with one's personal interest.

#### Union's Role

Ultimately, the union shoulders numerous responsibilities and tasks embodied in serving the member doctor, since it is the link between the doctor and the union in Amman.

The union members benefit from the pension and social security system established in accordance with Doctors Union Law No 13 of 1982.

The Pension and Social Security Fund seeks to insure the payment of pension salaries to the doctor or to his family and to assure them of social security in case the member becomes incapable of working, in case he is deceased, in case he is arrested or in case his private practice is closed.

The member doctor pays to [sentence incomplete].

As for social security, this fund provides the heirs of a deceased doctor with emergency aid amounting to 400 dinars. The fund also covers the costs of medical care and pays the doctor or his family a monthly sum equal to the doctor's basic pension salary throughout the detention of a doctor in case the doctor is detained for administrative litigation, for violating his profession or for committing a misdemeanor against others.

The member doctor enjoys comprehensive health insurance.

The Doctors Union law states that the union's objectives are medical, health, scientific and social objectives seeking to raise the standard of the profession, to regulate it, to defend and protect it, to uphold the profession's ethics and to insure an honorable life for doctors and their families in old age and in case of need.

The union is a legal person entitled to own the movable and immovable assets necessary to achieve its goals and objectives. The union is also entitled to manage these assets in any manner it deems fit, and it may sue and be sued in the courts in accordance with the laws and regulations in force.

#### Future Plans

There are no future plans in place, with the exception of the absorption program we have already discussed.

The union sources have assured us of this fact, and this is not an accusation. All that the union has is the Doctors Union law, the pension and social security system, a pamphlet on the program for the absorption of new doctors and a number of proposals summed up in the following:

- A health insurance plan for the citizens in the West Bank and Gaza Strip.
- The foundation of new medical establishments capable of absorbing and training the doctors. Thus, both the doctors and the citizens will benefit.
- Establishment of a sound and balanced relationship with the Arab health authorities present in the West Bank and with the health authorities in Jordan.

The union failed to complete its project for the housing of doctors, with the project foiled by the union in Amman. This was the project planned to be a complete project throughout the West Bank.

The subcommittees have exerted efforts to build housing projects at the level of the districts. The Nabulus and Jerusalem projects have been completed whereas the Ramallah project failed and was finally stopped after encountering obstacles created by personal and intrinsic problems.

#### Appeal

To the doctors in all parts of the West Bank: The health of your union is likely to deteriorate at any moment. We wish you would subject it to a full health examination to avert danger.

Interact with the union, and it will give you what it has not been able to offer you so far because it is indubitable that it will become stronger and firmer with your support.

Continuation of the present situation is a very grave thing that will cause the union to lose its moral character and turn into a mere tribal gathering whose task is to reconcile differences, relying on genuine Arab forgiveness. If this happens, the union will no longer have any noteworthy scientific value.

## BRIEFS

SCABIES IN NEGEV--BEERSHEBA (Itim).--An epidemic of scabies in the Negev has been brought under control, according to the Southern District Medical Officer. Dr. Viola Toerek said that of 26,000 children, recently examined in schools and kindergartens, fewer than 300 still had the illness, which had been wide-spread a month ago. The disease, which is caused by minute ticks under the skin, causes severe itching. It is passed on by direct contact or through clothes. One of the reasons that it gets out of control is that someone suffering from scabies is not entitled to sick-leave. This means that it spreads at places of work. One report says the disease was brought back by soldiers on duty in Lebanon. Signs of the illness were also discovered in Jerusalem six weeks ago, but it does not appear to have spread there.. [Jerusalem THE JERUSALEM POST in English 3 Jan 84 p 3]

CSO: 5400/4512

ONCHOCERCIASIS WIDESPREAD IN BETTIE SUBPREFECTURE

Abidjan FRATERNITE MATIN IN French 4 Jan 84 p 7

[Article by Moussa Toure: "Bettie Hit By Onchocerciasis"]

[Text] Over 200 people affected with cysts, 50 of them already blind.

The Bettie subprefecture (90 km from Abengourou) has been hit by onchocerciasis. Bettie, the chief town, Abradinou and Akrebi (two of the eight villages in the district) are the most seriously affected. In the town of Bettie, close to 200 people have cysts and over 50 are already blind.

The disease in this area is caused by the Comoe River which flows through the subprefecture. Although the river is treated periodically--products are sprayed to destroy the onchocerciasis agents--the disease still affects the populations of Bettie, Abradinou and Akrebi.

The Ministry of Health is aware of the situation, and officials stated that an investigation of the whole Comoe River has been in progress since 1966. Besides, they point out, the Bettie area is covered by the control program of the WHO Ouagadougou agency. The problem is that larvae become resistant and that, at present, no drug is really effective against the disease.

The only nurse in the area, Mr Temene Godo Jerome, is taking care of both his usual patients and those who are threatened with blindness, but the means available to him are very limited. As a result, all he can do is screen the population and issue consultation vouchers so those who have the disease can get treated in Abengourou. Unfortunately, most patients do not use these vouchers; rather they expect the nurse to treat them on location with drugs, although he does not have any. As a result, these patients do get worse and their recovery is compromised.

Besides the nurse's efforts, many information campaigns are carried among the population, who often remains indifferent.

This is the case with the efforts of the subprefect who is doing all he can to convince those affected with onchocerciasis to use the vouchers issued and follow the practical advice given to them.

The disease itself often takes the form of scabies and a thickening of the skin. At any rate, it is desirable to treat the Comoe River far more frequently than it is now, to limit larvae proliferation.

MALAYSIA

BRIEFS

SARAWAK DENGUE FEVER CASES--Kunching, Fri--Four more cases of dengue fever and one suspected case of dengue haemorrhagic fever (DHF) were reported in Sarawak today. The latest cases bring the total number of suspected cases of dengue and dengue haemorrhagic fever in Sarawak since the beginning of this month to 64. [Excerpts] [BK030445 Kuala Lumpur NEW STRAITS TIMES in English 28 Jan 84 p 9 BK]

CSO: 5400/4374

## MOZAMBIQUE

### INS RESEARCH TO COMBAT MALARIA DESCRIBED

Beira DIARIO DE MOCAMBIQUE in Portuguese 28 Dec 83 pp 8-9

[Article by Isaac Alfandega]

[Text] Malaria, also known as paludism, is a disease that poses a great problem not only in Africa, but also in almost all the countries of the world where the climate is tropical or sub-tropical. The present average rate of incidence in Mozambique, that is, the number of persons suffering from the disease, is 43.7 per 100 inhabitants, according to what has been revealed by the DIARIO DE MOZAMBIQUE, an authorized source of the ministry of health. The same source adds that malaria is the chief disease in the country of those that are transmitted by vectors. And this is the reason for which the National Institute of Health (INS), since last February, has been conducting a broad program of scientific investigation based on the cytogenetic method, which, through the study of chromosomes, makes possible the identification of various habits of the mosquitoes, which cannot be specifically determined through traditional methods of investigation.

The general project involves elevating to a national level with regard to the behavior of the vectors, particularly those of the *Anopheles gambiae* complex, which is that most dominant in Mozambique and which is, in fact, made up of a great number of species with different manifestations. However, when one is dealing with the malaria problem, its multiple aspects, which involve the triad of "host-parasite-vector," must be included.

In this case, the "host" is regarded as the person who harbors the parasite (the causer of the disease), while the parasite properly so-called is, in the particular case of Mozambique, the *Plasmodium falciparum*, the causer of more than 90 percent of malarial infections. There also exist in Mozambique other parasites such as the *Plasmodium malariae* and the *Plasmodium ovale*, which, although they produce a less serious symptomatology, are responsible for the remaining cases of the disease.

And finally, in the matter of the vector, it is a question of the *Anopheles funestus* and the *Anopheles gambiae* species of mosquito already mentioned, of which, as is generally known, only the females feed on blood and in this way can transmit the disease if they themselves are infected.

This entire range of situations will be the object of the work done on the initiative of the National Institute of Health, which, for the purpose, has worked out a cover map dealing with virtually all 10 provinces of the country, in a project directed by Giancarlo Carrara, an Italian technician in entomology, with the collaboration of the University of Rome and the local teams.

Individual studies along the same lines are being made in two previously identified areas, as in the case of Matutuine in the province of Maputo, where an effort is being made to establish ecological, epidemiological and economic determinants of the malaria situation in that district; while in Nampula a study is being made of the parasite itself to ascertain what can be learned with respect not only to its prevalence among the population, but also to eventual changes in the sensitivity of the *Plasmodium falciparum* to the chloroquine treatment, that is, to evaluate the response of the parasite to the usual types of treatment employed in the country.

#### The Importance of the Investigations

The importance of the investigations in progress is clear, as is obvious from the fact that the approach is extremely objective and aims at achieving the ability to identify the malaria vector and facilitating a more accurate, efficient and expedient process of control. But let us look at the following for the sake of an example:

Some mosquitoes remain inactive in the house after biting persons, whereas others, after feeding, escape to the outside. Now if it is impossible to identify each of these species, it obviously becomes difficult to implement a proper program with which to fight the vector. And in fact this study is the first step toward reaching the point at which it will be possible to attempt the solution of some of the problems relating to the paludism that is ravaging the country.

As a matter of fact, the program in progress already makes it possible to establish the geographic and ecological habitat of three different species of the *Anopheles gambiae* complex. In this first phase of the investigations, chromosomal situations have been ascertained which, through future specific captures of mosquitoes, will facilitate what is called the "individualization" of some of their habits.

The most solid results of this extensive activity will be put into concrete form at the end of the next two year period, although opportunely it is possible even at this early stage to supply preliminary data.

The People's Republic of Mozambique is one of the first countries in the southern portion of Africa to adopt the cytogenetic method of chromosome



study. This methodology is regarded as one of the most advanced in the world today in the field of the scientific investigation of the malaria vector.

The opinion of Giancarlo Carrara, Italian technician in entomology initially working at the INS, is that: "With this method, it is possible to learn various habitats of the mosquitoes that cannot be individualized through the use of traditional methods."

8089

CSO: 5400/61

## HIGH INCIDENCE OF CHRONIC LUNG DISEASES DISCUSSED

Kathmandu THE RISING NEPAL in English 13 Jan 84 p 5

[Article by Kunda Dixit: "Sick Lungs"]

[Text] The air pollution problem in Nepal is one of the most serious in the world. Before you reject this statement outright, a reminder that we are talking about domestic air pollution inside homes. Smoky fireplaces and lack of ventilation expose rural Nepali families to the stiffest doses of airborne pollutants anywhere—resulting in the grim statistics that this country has the highest rate of incidence of chronic bronchitis in the world.

Although researchers say the primary factor responsible for this is smoking (an estimated 79 percent Nepali men and 58 percent Nepali women smoke—again one of the highest rates in the world) equally responsible are the wasteful smoky fires in rural Nepali homes. It is interesting that there is no Nepali equivalent of the word "chimney" and the advantages of one to get rid of smoke by draft ventilation has never been felt by the traditional technology of the villages. Smoke usually filters out of the thatch roofs, or swirls as a pungent blue haze inside the houses exposing entire families to the dangerous effects of pollutants. Studies have shown, for instance, that the pollution index of homes with open fires are ten times more than in some of the more industrialised cities in Europe.

The effects of indoor pollution in the Third World, in fact, is a largely ignored threat to the health of the people of these nations. A recent study in India has

revealed the astonishing fact that a housewife exposed to firewood smoke for two hours a day is "faced with the same level of respiratory hazards as a person smoking twenty packets of cigarettes a day". The study, carried out by the Honolulu based Resources Systems Institute in some villages in the Indian state of Gujarat showed that coddling and damp firewood were particularly harmful, and even contained some known carcinogens present in cigarette smoke. The study calibrated a pollution reading of 7,000 micrograms per cubic meter inside some homes, a rating that makes London's 300 micrograms per cubic meter sound negligible. Dr Kirk Smith, the WHO environmental expert associated with the project was quoted as saying that the primary victims of domestic pollution were rural women, who fared "slightly better than coke-oven workers".

It doesn't need much imagination to extrapolate these findings to houses in high mountain villages in Nepal. The pollution levels must be naturally higher than in the rural Gujarati homes since there is even less ventilation in Himalayan homes, and families spend almost the entire cold season indoors. Villagers around Jumla, for instance are known to become snowed in for days inside their homes breathing acrid juniper smoke, and emerging blackened with soot only in spring.

Excessive smoking and breathing polluted air infects the bronchial tubes which channel air in and out of the lungs. The infection affects the respiratory tract and causes considerable coughing and the discharge of sputum. Repeated infections cause chronic bronchitis. The ultimate state, called cor pulmonale, is reached when the infections finally affect the heart. This stage is irreversible, and the only thing doctors can do is prolong the patient's agony by keeping him/her alive with expensive medications.

"Who says heart disease is a rich man's affliction?" asks Dr M.R. Pandey, Nepal's noted cardiologist. He cites statistics to show that 46% of heart patients at Kathmandu's Bir Hospital from 1969 to 1975 were cor pulmonale patients.

Over-fed members of the population showed only 8% incidence during the same period. The number of chronic bronchitis patients progressing into cor pulmonale is on the rise, and according to Dr John Crofton of the University of Edinburgh, "Hospitals in Nepal and India in recent years have seen more bronchitis related cor pulmonale than in British wards."

Chronic bronchitis, called the "Englishman's disease", still kills 30,000 Britons every year. In fact, before Britain's Clean Air Act went into force in controlling industrial pollution in 1968—the death rate from chronic bronchitis was much higher. A killer smog in London in 1952 for instance resulted in the deaths 4000 people in a few days. Stringent anti-pollution laws and anti-smoking campaigns are believed to be largely responsible for the dramatic decrease in mortality from chronic bronchitis in Britain in the past decade.

In Nepal's case, no one doubts that the major cause of the high incidence of chronic obstructive lung diseases is smoking. A study in the Sundarjal area in Kathmandu Valley showed that seventy percent of the people surveyed had initiated smoking between the ages of eleven and twenty, while almost twenty percent said they started smoking before they were eleven. This writer came across a two-year-old child

at Ghora Tabela in the Langtang Valley a few years ago who was irreversibly hooked on *bidi*. The little boy's father, a smoker himself, said the baby wanted a few puffs everytime he lighted a *bidi*, and would cry unless it could take a few drags!

The single biggest cause of respiratory diseases in the country is from cigarette smoking. Governments have been known to justify the tobacco industry for the employment generated and for the hefty revenue it brings to the national coffers; but this short term gain is more than nullified by morbidity on a colossal scale. Morbidity that defies measurement in numbers of mandays lost and the resouces expended in importing the medicines to cure tobacco-induced lung disorders.

The most effective step to combat cor pulmonale would be to ban cigarettes, hookahs and *bidis*. Since that would be rather complicated, the next best measure would be to discourage smoking in the population in general and ban smoking in public places. It has been proved, for instance, that the smoke inhaled by smokers in fact contains less carbon monoxide than that let off into the surrounding air. This results in so-called "involuntary smoking" in which non-smokers inhale the same "carcinogenic tobacco smoke" and sometimes more carbon monoxide than the smokers themselves.

Says Kurt Baumgartner in the *Canadian Council of Smoking and Health Newsletter*, "A smoker's right to smoke is not in dispute, but that right ceases where it begins to interfere with the the non-smoker's right to smoke-free air."

It is when individuals are exposed to both cigarette smoke as well as constant smoke from a smouldering home fire that the factors act synergistically to compound the effect. Children of smoking parents in rural areas are particularly prone to habitual cough rapidly advancing into bronchitis and acute respiratory infection.

The saddest aspect of the grim chronic bronchitis story in Nepal are the statistics recently revealed by a study

jointly undertaken by the Mrigendra Medical Trust (MMT) and the National Council of Science and Technology (NCST). A survey in Khalanga Bazar in Jumla indicated that 489 children in every one thousand died before the age of one. Of these 333 children died of acute respiratory infection. This figure is really ghastly because the nationwide average child mortality rate is "only" 132.5 according to the 1974/75 Demographic Sample Survey.

Acute respiratory infection in babies below one year of age was cited as the cause of death in 21% of children in Surkhet District in a survey by the Institute of Medicine in 1978. The pattern is clear: Jumla households, because of the colder climate, burn more firewood indoors thus exposing little children to more smoke than in warmer Surkhet. The Jumla study also showed that acute respiratory infection was more marked in children whose parents were smokers.

"Children out there are dying like flies," says a shocked field officer who helped collect some of the above data on child mortality.

There seems to be no doubt, therefore, that respiratory tract infection is a major child-killer in Nepal. And nor does it spare the adults. The MMT/NCST figures show that incidence of this disease is the highest reported anywhere in the world, and the analysis of data have shown that the degree of exposure to indoor smoke pollution is significantly correlated to the incidence of chronic bronchitis.

Dr. M.R. Pandey again: "This was formerly only speculation. Our studies in Nepal have proved this correlation between exposure to firewood smoke and chronic obstructive lung disorders for the first time."

The MMT and NCST also made a pilot survey of the carbon monoxide levels inside homes on the outskirts of Kathmandu valley and concentrations of this deadly gas of up to 80 parts-per-million (ppm) were encountered. Carbon monoxide has 230 times more affinity to combine with the hemoglobin in the blood than oxygen. The levels of carbon monoxide in hemoglobin, the oxygen-carrying pigment in red blood

cells, was also monitored in a Nepali village by MMT in 1981. Carboxy-hemoglobin (carbon monoxide combined with hemoglobin) levels were as follows:

normal non-smoker:

(not exposed to fireplace smoke) 0.6%

normal non-smoker

(exposed to fireplace smoke): 4.3%

smoker

(exposed to fireplace smoke): 8.9%

Normal levels of carboxy hemoglobin in non-smokers is supposed to be below one percent, and the above table clearly shows the intolerably high levels of carbon monoxide in the blood of even non-smoking individuals exposed to firewood smoke.

Strategy to tackle this potentially crippling effect on the nation's lungs should be two-pronged:

a) a massive anti-smoking campaign on a nationwide scale since nicotine addiction has been identified as the single biggest cause of terminal heart-lung disease

b) control smoke inside homes by rigorous promotion of smokeless improved fireplaces, but this is easier said than done since existing programmes to promote improved smokeless stoves have had to confront a variety of social complications

"The thing with improved stoves is that the person doing the cooking at the home fireplace, usually the housewife, should want them," says a field officer of an integrated development project. The answer is that smokeless fireplaces should be introduced only after rural families know and believe that smoke is bad for health, they should be able to afford the stoves or build it themselves, and the new *chulos* should be acceptable to the cooking habits of the population. There have been instances of delicate pottery stoves disintegrating under the pressure of vigorous stirring that is required to cook *dhindo*.

No one should believe that the country should stop smoking overnight. Even individuals with extreme will power cannot do that. But chronic bronchitis and cor pulmonale are incurable, but preventable, diseases. And the cause have been identified. What remains to be done is to initiate action (no more words) to try to reduce these causes. □

ENVIRONMENTAL CAUSES OF CANCER IN SHANGHAI

Beijing HUANJING BAOHU [ENVIRONMENTAL PROTECTION] in Chinese No 8, 1983  
pp 22-24

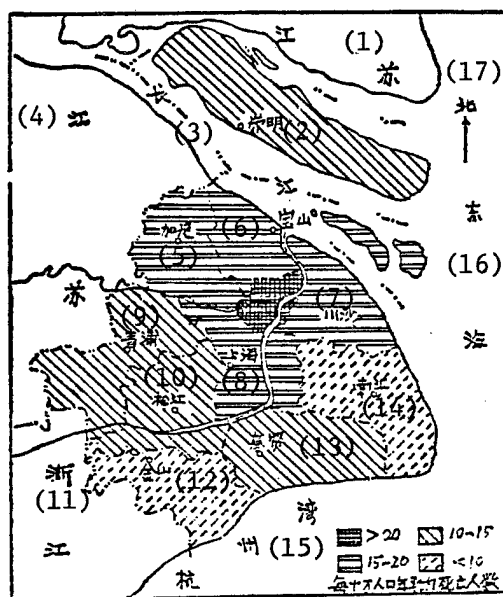
[Article by Fang Rukang [2455 1172 1160]: "An Inquiry Into the Environmental Causes of Cancer: Shanghai as an Example"]

[Text] 1. Shanghai, the largest multi-industrial city in China, also has the highest cancer mortality rate among all the provinces, municipalities and autonomous regions in the country. Shanghai's cancer reporting system was established in 1963, and over the years the municipality's cancer mortality rate has risen steadily.

We prepared a geographical distribution map of several types of cancer that are common in Shanghai and discovered that even in an area as small as the municipality's 6,100 square kilometers there were distinct regional differences in cancer distribution. For example, there was an especially high incidence of gastric cancer in the urban district and in Chongming, Jiading and Baoshan Counties (see map); liver cancer was highest in Chongming and Nanhui Counties; lung cancer was clearly more prevalent in the urban than in the suburban districts and in adjacent than in outlying suburban districts; esophageal cancer was concentrated along the banks of the Suzhou He; and the high incidence of intestinal cancer was confined to several communes in the western part of Qingpu County. Thus the spatial distribution of all localized cancers has the following characteristics: incidence is higher in the urban than in the suburban districts and in adjacent than in outlying suburban districts; incidence is relatively high along the lower reaches of the Huangpu Jiang and Suzhou He and in communes at the mouth of the Chang Jiang and along the coast; almost all types of cancer are prevalent on Chongming Island; the opposite is true in Jinshan County, located in the west. Preliminary investigation and analysis suggest that the high incidence of cancer in Shanghai is possibly due to the effect of natural environmental factors and, even more importantly, to man-made factors (i.e., pollution).

2. Although Shanghai is small in area, there are distinct regional differences among the key elements of the municipality's natural environment. In terms of topography, for example, Shanghai is an alluvial plain that lies at the mouth of the Chang Jiang and is generally low and flat. Nevertheless,

Comparative Mortality Rates for Lung Cancer in the  
Suburban Counties and the Urban District of  
Shanghai Municipality  
Average Annual Deaths per 10,000 Population



Key:

- |                |                    |
|----------------|--------------------|
| 1. Jiangsu     | 10. Songjiang      |
| 2. Chongming   | 11. Zhejiang       |
| 3. Chang Jiang | 12. Jinshan        |
| 4. Jiangsu     | 13. Fengxian       |
| 5. Jiading     | 14. Nanhui         |
| 6. Baoshan     | 15. Hangzhou Bay   |
| 7. Chuansha    | 16. East China Sea |
| 8. Shanghai    | 17. North          |
| 9. Qingpu      |                    |

the western sector consists of the Dian-Miao lake system. Thus the east, north and south have higher elevations of about 5 meters above sea level, while the western sector around Dianshan Hu is lower, at about 2.5 meters above sea level. These topographical characteristics appear to be related to the distribution of intestinal cancer.

Shanghai has the highest incidence of intestinal cancer in the nation. Yet the distribution of this disease is largely confined to the low-lying district in western Qingpu County, where rivers flow sluggishly and which district formerly had one of the highest incidences of schistosomiasis in the municipality. Studies conducted by the Qingpu County Sanitation and Epidemic Prevention Station have discovered that a very large majority of intestinal cancer patients have also suffered from schistosomiasis and that

areas seriously affected by the latter disease also have the highest mortality rates for the former (see Table 1). It is commonly believed in China that the high incidence of intestinal cancer is related to the high fat and protein and low fiber contents of people's diets. Nevertheless, schistosomiasis in Shanghai's low-lying district may be an important factor contributing to the high incidence of intestinal cancer therein.

Table 1. Investigation of the Relationship Between Schistosomiasis and Intestinal Cancer in Qingpu County, 1974-1980

<u>Prevalence of Schistosomiasis</u>		<u>Schistosomiasis Mortality</u>		<u>Intestinal Cancer Mortality</u>		<u>Mortality from Malignant Tumors</u>	
<u>Infection Rate</u>	<u>No People Infected</u>	<u>No Deaths</u>	<u>Mortality Rate (per 10,000)</u>	<u>No Deaths</u>	<u>Mortality Rate (per 10,000)</u>	<u>No Deaths</u>	<u>Mortality Rate (per 10,000)</u>
>50%	59,473	276	36.78	153	20.39	965	128.58
30-49%	83,440	354	26.29	209	15.52	1,597	118.58
10-29%	13,002	73	18.07	53	13.12	654	161.91
<10%	2,543	13	3.45	42	11.13	431	114.22

Shanghai's climate is warm and moist, with an average annual temperature of 15 to 16 degrees [centigrade], rainfall of 1,100-1,200 mm and relative humidity of more than 80 percent (82 percent in Chongming County). Under these climatic conditions, some foodstuffs are prone to producing aflatoxin, which can cause liver cancer. In addition, Chongming and Nanhui Counties, which are later land formations, possess extensive tracts of saline-alkaline soil. Such soil frequently contains large amounts of nitrate and nitrite, which under certain conditions readily form the carcinogen nitrosamine. These factors may be related to the high rate of liver cancer in Shanghai, especially in Chongming and Nanhui Counties.

There have long been reports regarding the relationship between cancer and soil trace elements. For example, the lack of manganese in the soil may be a reason for the high incidence of cancer in some areas of Finland; low copper and high zinc contents in the soil are an important factor contributing to the prevalence of gastric cancer in Wales, England; the soil of areas with high incidences of esophageal cancer has a low magnesium and molybdenum content; and areas in the United States where intestinal cancer is prevalent lack selenium.

Shanghai's soil contains mercury,  $0.2 \pm 0.08$  ppm; cadmium,  $0.14 \pm 0.05$  ppm; zinc,  $75.5 \pm 9.2$  ppm; chromium,  $63.4 \pm 9.1$  ppm; manganese,  $560 \pm 54.7$  ppm; arsenic,  $9.0 \pm 1.8$  ppm; and fluorine,  $532.8 \pm 65.9$  ppm. These contents are generally high, but the relationship between them and cancer in Shanghai awaits further research.

3. Environmental pollution in Shanghai is serious. The Huangpu Jiang, the principal source of the municipality's drinking water, has serious organic pollution, and since 1964 the river has emitted foul odors during the dry

season of almost every year. In 1978 the black stench lasted 109 days, and in 1979, though there was very heavy rainfall, the stench still lasted 96 days. There is also serious contamination by harmful and toxic substances during the dry season. Such substances have been found to include mercury, phenol, chromium, copper, zinc, manganese and organic chlorine. Phenol pollution, which is becoming especially serious, has been discovered to have reached over 90 percent in samples tested at water treatment plants. Chlorination produces the chlorophenol odor that everyone despises. The Environmental Action Foundation in the United States [Meiguo Huanjing Jijin Hui] has published epidemiological research data and asserted that the chlorination of drinking water in New Orleans is related to the city's cancer mortality rate. The National Cancer Institute in the United States [Meiguo Aizheng Yanjiu Suo] has reported that cancer can be produced by large amounts of chloroform. Large amounts may be found in the drinking water in Shanghai, and still more in that of Osaka, Japan (see Table 2). The incidence of gastric cancer in these two cities is among the highest in the world. Thus relevant authorities should pay sufficient attention to the carcinogenicity (especially gastric cancer) of chloroform found in drinking water supplies.

Table 2. Chloroform Content in Chlorinated Tap Water in Some Foreign and Domestic Cities

<u>City</u>	<u>Chloroform Concentration (ppb)</u>
80 U.S. cities (1975)	<0.1-3.11
Osaka, Japan (1976)	40.0-55.6
Tianjin (1977)	14.5-72.0
Beijing (1977)	2.6-3.1
Shanghai (1977)	24.7-38.0

Industry and transportation cause air pollution, among which benzo(a)pyrene is recognized as a cause of lung cancer. A 12-year study conducted in Switzerland indicated that the incidence of cancer among residents living on busy thoroughfares was eight times greater than that for the general population. A comparative investigation of benzo(a)pyrene in Shanghai showed clearly that the commercial transportation and industrial zones had the highest concentrations of that substance (see Table 3). This illustrates that air pollution, especially benzo(a)pyrene contamination, is a major factor contributing to the steady rise in the incidence and mortality rates of lung cancer.

Table 3. Comparison by Functional Zone of Benzo(a)pyrene (Bap) Concentrations in Shanghai

<u>Functional Zone</u>	<u>Dust Fall g/m<sup>2</sup>/day</u>	<u>Bap ug/g</u>	<u>Bap ug/m<sup>2</sup>/day</u>
Commercial trans- portation	1.02	7.35	7.78
Industrial	1.15	5.46	6.60
Residential	0.70	5.61	3.90
Clean Zone	0.22	1.31	0.34



The National Cancer Institute in the United States has confirmed that DDT and other insecticides containing chlorine show distinct carcinogenesis in rodents. Large amounts and many types of insecticides are used in the Shanghai area. Thus the carcinogenicity of these substances cannot be ignored. In addition, Shanghai uses larger quantities of food additives, dyes, preservatives, hair coloring and Western drugs than does any other province or municipality. And some additives such as saccharin, dyes such as cream-yellow and drugs such as alkylates can be carcinogenic. American epidemiological research has indicated that long-term use of hair coloring causes a high incidence of breast cancer among climacteric women. Thus we must conscientiously handle these chemical materials.

The most common cancers in Shanghai are gastric, liver, esophageal, intestinal and lung cancers. The causes of these diseases are much more closely associated with water and air pollution than with the natural environment. Thus abatement of water and air pollution may well be an effective and feasible way of lowering the cancer mortality rate.

12431

CSO: 5400/4101

ANTIBODY FOR HEMORRHAGIC FEVER

Beijing JIANKANG BAO in Chinese 22 Nov 83 p 1

[Article by Huang Zemin [7806 3419 3046]: "High-titre and High-specificity Single-clone Antibody for Hemorrhagic Fever Developed"]

[Text] A high-titre and high-specificity single-clone antibody for hemorrhagic fever has been developed at the Institute of Virus Research of the Center for Preventive Medicine.

Hemorrhagic fever is a pestilence from natural source with as a major infectious source. The mortality rate is relatively high. The disease still occurs in some areas of our country and seriously threatens people's health. During recent years, the standard serum used for identifying hemorrhagic fever virus in pathogenic and epidemiological research is mainly the serum drawn from the patients during the recovery period. Since the serum antigens of the patients are quite complicated with individual differences, the reliability of the identification process is often reduced. Animal immunity serum, being a polyclone antibody, made it difficult to identify the differences among viruses. To solve this difficult problem, the science research personnel of the Institute of Virus Research Entomophilous Virus Laboratory labored for half a year to mingle the marrow tumor cells of small white mice with the spleen cells of small mice which are immune to epidemic hemorrhagic fever. The result are several sets of hybrid lymphocyte tumors. The hybrid lymphocyte tumors secrete large numbers of high-titre and high-specificity single-clone antibodies for hemorrhagic fever. Substituting this single-clone antibody for the serum of patients during recovery period, we can determine the epidemic hemorrhagic fever antigen more accurately. The single-clone antibody can be used for analyzing virus antigen and experimenting with obstructions to measure the titre of the antibody in patient's serum. The research at the Institute for Virus Research provided new techniques for: (1) aetiological determination of hemorrhagic fever, (2) investigation of rate of virus carrying mice and (3) diagnosis of patients' serum.

12453

CSO: 5400/4116

PROGRESS IN DIAGNOSIS OF HEPATITIS

Beijing RENMIN RIBAO in Chinese 22 Nov 83 p 3

[Text] Xinhua News Agency 21 Nov--There has been vital progress in the manufacture of the reagent for diagnosing virus hepatitis in our country.

Six Ministry Department of Public Health-affiliated, biological products manufacturing institutes located in Beijing, Shanghai, Changchun, Wuhan, Lanzhou and Chengdu have manufactured the second-generation reagent for diagnosing hepatitis type B surface antigen in blood cells. Several tens of millions of individual portions of the reagent are now manufactured annually, which has greatly enhanced the prevention work against the spread of hepatitis type B. Hepatitis diagnosis and treatment are significantly elevated.

The new third-generation reagent for diagnosing hepatitis type B surface antigens, antibodies and nucleus antibodies has been successfully trial-manufactured by the combined efforts of the Department of Public Health, the Institute for Biological Products and Medicine Inspection, the Beijing Institute of Biological Products, the Shanghai Infectious Disease Clinic and the Institute of Basic Medicine of the Military Medical Science College. The reagent soon will be put into production. The third-generation product consists of the solid radioactive immunization reagent and the enzyme-combined immunization analysis reagent.

The special-topic hepatitis subcommittee of the Chinese Medical Association and the Ministry of Public Health Science Committee convened recently in Beijing to appraise the hepatitis type B diagnosis reagents and came to regard them as one of the most important scientific research achievements in the actual prevention and treatment of hepatitis.

12453

CSO: 5400/4116

SCHISTOSOMIASIS VIRTUALLY ELIMINATED IN CHENGDU

Chengdu SICHUAN RIBAO in Chinese 26 Nov 83 p 2

[Article by Luo Weiyun [5012 4850 0061], journalist of Sichuan Ribao, and Zhou Liejing [6650 3525 0079]: "After Persistent Struggle Against the Epidemic for More Than 20 Years, Chengdu Virtually Eliminates Schistosomiasis"]

[Text] Since the middle of October, the group in charge of examining and accepting the prevention and cure of blood disease tasks in Chengdu, Sichuan Province, has completed the examination of three areas: the Jinniu (Golden Cow) District of Chengdu Municipality and the east and the west sections of the city proper. They found that the three areas have basically achieved the standard for eliminating schistosomiasis.

For more than 20 years, to prevent and treat blood diseases, workers in Jinnui, Chengdu and in the east and the west sections of the city proper have made incessant efforts to exterminate schistosomiasis. The task entered the agenda for improving the mass's living standards, enhancing health protection, developing production and doing well in the four modernizations, after the convention of the 3d Plenary Session of the 11th CPC Central Committee. Party and administrative organs at all levels in the three areas strengthened their leadership in earnest, while medical specialists cooperated closely with the mass's movement. The result is an outstanding achievement in blood disease prevention and treatment. Tying the schistosomiasis prevention and cure task with farmland capital construction, Jinniu District both filled and renovated fields infected by oncomelania and took comprehensive chemical extermination measures. Repeated checks and chemical applications took up a total of 9.84 million man-days. The decrease in oncomelania-infected fields in the district is 99.49 percent. Patients and cows diagnosed as having the disease are now treated and generally cured within the same year it is discovered. The cure rate is 99.8 percent for humans and 96.4 percent for cows. Within the east and the west sections of the city proper, wide areas of oncomelania infection are eradicated. Through the combined efforts of the patriotic health movement and the perseverance of checking and exterminating oncomelania together with fully utilizing the vantage of plant and unit facilities to reform the environment, the oncomelania-affected area in the two sections was reduced by more than 99 percent. All patients from other places seeking treatment were being treated.

12453

CSO: 5400/4116

NATIONWIDE SURVEY OF HEPATITIS

Beijing GUANGMING RIBAO in Chinese 2 Dec 83 p 1

[Article by journalist Qu Guoxiang]

[Text] The second National Meeting on Infectious Disease and Parasitic Disease of the Chinese Medical Association was held in Zhengzhou during the last 10 days of November. A special-topic report delivered at the meeting, "Survey and Study of the Virus Hepatitis Epidemiology in China," was highly praised. Specialists pointed out that the study has filled a significant gap in health work and epidemic prevention and provided a scientific basis for establishing research plans on and preventive measures for virus hepatitis. It is a meaningful directive for future development.

The first national survey on hepatitis started in 1979. People of different sexes, ages, races and professional groups from the 88 cities and 121 rural counties of 29 provinces, municipalities and autonomous regions were being studied. Preliminary materials on a national scale were obtained during 1980. After 2 years of practical examinations and experiments, the study has achieved notable social benefits for advancing the hepatitis prevention and treatment tasks.

The concerned study unit which did the survey and the relevant technical personnel put the survey results through statistical and comprehensive analyses to arrive at the epidemiological characteristics of virus hepatitis. Concerning the prevalence rate, hepatitis type A is higher in the area to the north of the Changjiang River, while hepatitis type B is higher in the area to the south of the Changjiang. Of the 209 counties and cities under study, both hepatitis type A and hepatitis type B are epidemic. Concerning total incidence of the disease and current incidence of the disease, the male rate is higher than the female rate, with the peak of incidence before age 10 and between ages 30 and 40. Analysis of the data on 19,421 families reveals that hepatitis type B has apparent family concentrations. Families with mothers who carry the virus have a higher incidence of the disease. Among current hepatitis patients, the proportion of chronic hepatitis is higher, at 51 percent of the total. Most of the chronic patients are youths between 30 and 50 years of age. In certain areas of our country, the incidence of the hepatitis type B ranges from 31 percent to 61 percent.

The result of the research has been highly regarded by concerned departments.

12453

CSO: 5400/4116

ADULT EPIDEMIC DIARRHEA VIRUS DISCOVERED

OW012310 Beijing XINHUA in English 0632 GMT 1 Feb 84

[Text] Beijing, February 1 (XINHUA) -- Chinese scientists have discovered the virus which causes adult epidemic diarrhea, according to the Institute of Virology under the China National Preventive Medicine Center here. The discovery was made through the joint efforts of scientists at the institute and the epidemic prevention stations in Gansu, Liaoning and Heilongjiang provinces. Professor Hong Tao of the Institute of Virology said that the virus is known as a rota-virus and three such have so far been discovered in the world. One causes diarrhea in infants and the other is an atypical rota-virus found in chicken and pig feces.

CSO: 5400/4121

EFFORTS UNDERWAY TO COMBAT JOR BLINDNESS

Khartoum SUNA in Arabic No 4741, 17 Jan 84 p 5

[Text] Khartoum, Jan 17 (SUNA)--The combatting of Jor Blindness disease will cost Sudan 400 million dollars and will need 20 years to get rid of it which is the incubation period of the disease, announced Health Minister Ali Fadl.

A plan to combat the same disease is currently underway at Ivory Coast, Upper Volta and Niger. About 700,000 persons benefit from the plan which will cost 200 million dollars, he said.

Some 1,500,000 persons have got the disease in Sudan and efforts are underway to combat it. The ministry in collaboration with the U.S. University of Michigan will conduct medical surveys on the disease to devise the appropriate means for its combatting. The ministry will also contact other international organizations, he added.

To this effect, a delegation from the World Health Organization will arrive in the next few days, he said.

Fadl was speaking before the People's Assembly yesterday in reply to an inquiry on the spread of Jor Blindness at Southern Darfur.

Replying to another enquiry on the deterioration of nutrition at hospitals he said three million pounds were allocated this year for nutrition and that regional health authorities are responsible for the nutrition process. But his ministry has not received report on any shortages in this regard, he indicated.

CSO: 5400/4601

## NUMBER OF MALARIA CASES DECLINES

Bangkok BANGKOK POST in English 5 Nov 83 p 3

[Text] THE number of people suffering from malaria so far this year has declined nationally by more than 100,000 compared to last year which recorded the highest number of malaria cases in the past 10 years.

A Malaria Division report said that 420,799 people last year suffered from a new strain of malaria which was resistant to old types of drugs.

So far this year, over 200,000 were reported to have contracted the disease, said the report.

The new malaria strain, known scientifically as *plasmodium flacitarum*, is resistant to *quoloquin* a treatment widely used after World War II.

whether a person had contracted malaria, while three years ago it took 15 days, the report said.

The report said that the new strain of malaria was widespread along the Thai-Kampuchean border provinces, where it was believed to have been introduced by refugees.

## DRUG

A new drug which combines quinine and an anti-biotic, *tetracycline*, had proved highly effective in curing the disease, the report said.

According to the report, the Public Health Ministry has set up about 1,000 malaria clinics throughout the country.

It now takes only 20 minutes to determine

CSO: 5400/4387



# HEPATITIS, LIVER PROBLEMS NOTED

Bangkok BANGKOK POST in English 18 Jan 84 p 5

[Text] **ONE out of 10 Thais carries a virus that can cause liver cancer and cirrhosis of the liver, the Pasteur Institute's Dr Alain Goudeau said yesterday.**

This means that about five million Thais are spreading the virus, Hepatitis B, through their saliva, sweat, blood, excrement and semen, said Dr Goudeau, who was in Bangkok to attend the Asian Pacific Association for the Study of Liver Scientific Meeting which ended at the weekend.

The viral disease can also be transmitted from a mother to her unborn child, said Dr Goudeau, who is a member of the medical team which discovered the anti-hepatitis vaccines.

He said there is no way to destroy the virus while the only prevention is through immunisation, with vaccines made from the blood of hepatitis patients.

However, he added that the vaccine is expensive and there is still no definite plan for national immunisation in Thailand, like those against cholera and typhoid.

Dr Goudeau said he supports the vaccination of newborn babies, which would break the "vicious cycle of liver disease" in Thailand.

He said virus hepatitis B destroys liver cells which would lead to either jaundice or chronic liver infection.

There are no symptoms in chronic cases, he said, adding that it took about 15 to 20 years for chronic patients to develop cirrhosis of the liver or liver cancer.

Studies show that 25 to 40 per cent of sufferers who contract the virus when young die from liver diseases later in life.

This means that 57,000 babies born during the next five years will die prematurely of liver diseases, he said.

According to the Cancer Institute of Thailand, liver cancer is the second most serious cancer disease in the country. Other causes of liver cancer and cirrhosis of the liver include excessive alcohol consumption, malaria, typhoid and worms.

## USE OF LIZARDS TO COMBAT MALARIA REPORTED

Bangkok BANGKOK POST in English 7 Nov 83 p 3

[Text] THE little house lizard, or *Ching chok*, and a fish from Japan may hold the key to fighting a new, virulent malaria from Kampuchea which has already struck thousands of Thais.

Siriwat Wongsiri of Chulalongkorn University says that nature had its own check and balance. And that's why he was looking to the common little house lizard and the *Nile Tilapia* fish (*pla nil* in Thai) to help eradicate malaria-carrying mosquitoes.

Malaria was not a major problem in Thailand from the end of World War II until tens of thousands of Kampuchean refugees entered the border areas following the January, 1979, Vietnamese invasion of their country, Dr Siriwat said.

And most people who had contracted malaria along the border were infected with the so-called "new strain malaria" resistant to the type of drugs used here, he said.

Holes along the border, including gem mines, were left open and resulted in mosquito breeding and a spread of malaria, Dr Siriwat said.

The figures spoke for themselves. Residents of Chanthaburi Province last year had the highest incidence of malaria in the country, eight per cent or 33,724 cases, of the national total of 420,799 sufferers.

An entomologist who obtained his Doctorate at the University of California in 1975, Dr Siriwat felt Thailand was a paradise for mosquito students.

There were 3,000 species in the world, he said, and 600 of them were in Thailand.

After several years of studying the mosquito and its environment, including other insects and animals related to its survival, Dr Siriwat found the small house lizard relished mosquitoes and had a soft spot for the malaria-carrying anopheles type.

Anopheles mosquitoes lived up to two weeks after blood-sucking forays. But they remained very still on walls or trees, Dr Siriwat explained.

During this period, the lizard, to put it politely, could "suppress the mosquito before it bites a human," he said.

In other words, the lizard

who found a stationary stinger wouldn't waste much time.

It took Dr Siriwat eight years of research and experiment but he eventually discovered the *Ching Chok* would eat 100 mosquitoes a day.

There were about 10 species of small house lizards in Thailand, Dr Siriwat said but *Hemidactylus frenatus* was the only type known to eat mosquitoes. It can live up to a year and three months after birth can begin munching on mosquitoes, he said.

He also found *Ching Chok* living in the forests did not eat the anopheles-type mosquito.

"Mosquitoes in Bangkok already are naturally controlled by these *Ching Chok*," he said. There was no malaria in Bangkok except for a few cases on the outskirts such as Bangkok area, Dr Siriwat went on to explain.

But he saw the need to control the malaria endemic in Chanthaburi before it spread. His idea now was for a pilot project to get the mosquito under control in the countryside.

He has selected three malaria-endemic villages in Chanthaburi — Sub Tamoa, Nam Khun and Bang Kra Jah (Ta Mai) — for his experiments,

which he hopes will be funded by the US Agency for International Development.

A budget of three million baht was expected to be approved by USAID and the two-year project would be launched next year.

Dr Siriwat said that in the event USAID turned down the project, he would proceed by himself on a limited budget, although this would slow his work.

Apart from sending small house lizards to eat up the mosquitoes in the forest, he would experiment with the fish *pla nil* or *Tilapia nilotica*. This fish first entered the country when it was presented to His Majesty the King by the Crown Prince of Japan in 1965.

Dr Siriwat plans to release 100,000 *pla nil* into Chanthaburi ponds and ricefields to see how much of the mosquito larvae they swallow.

In laboratory research, Dr Siriwat found that one fish could eat up to 1,000 larvae per day, a higher number than any other fish he tried.

## HEALTH MINISTRY PROVIDES 1982 DISEASE STATISTICS

Dubayy KHALEEJ TIMES in English 23 Nov 83 p 3

[Article by Maruf Khwaja]

[Text] THERE was lesser incidence last year of certain common communicable diseases, the result, to a large extent, of a sustained and comprehensive immunisation and health education programme directed mainly at children.

People generally and children particularly, had greater relief from malaria, typhoid, measles, infectious hepatitis, mumps, TB and influenza during 1982 in comparison to their incidence the previous year, according to statistics released by the Department of Preventive Medicine at the Ministry of Health.

Immunisation provided at Mother and Child Health Centres, school clinics and in hospitals generally increased, in the case of children's diseases by an average of 10 per cent over 1981, and four-fold in the case of tuberculosis. The ratio of doctors and nurses to children was slightly less advantageous: there were 93 doctors, 17 dentists and 294 nurses administering the health programme to the 127,061 students attending the country's 313 schools, according to the report.

Malaria, the bane of labour productivity was brought under greater control with only 6,224 cases reported against 7,653 in 1981. Influenza which raged in epidemic proportions during the seventies was a relatively rare occurrence—just 728 cases notified in comparison to 3,705 in 1981. Children had relief from measles to the extent of 40 per cent lower incidence. However, ailments caused by intestinal parasites were fairly common—6,090 cases against 1981's 1,771; so was chicken-pox

which affected a marginally greater number of children. Altogether 24,645 afflictions occurred of a communicable disease.

**Immunisation**

According to the Department's annual report made available yesterday, the school health programme witnessed "reasonable progress" during the year. Priority is now being given to screening new entrants, health education, control of infectious diseases and immunisation. There is less emphasis on treatment of routine ailments at school clinics, and this enables medical personnel to concentrate more on preventive medicine. A total of 22,878 new students were screened. Attendances under the school health immunisation programme throughout the year were 394,716.

The report said a comparison of figures for immunisation against measles and TB showed a sharp decrease in the number immunised, compared to that in 1981. This indicated the need to revise the programme and seek to improve coverage rate for both vaccines. A measure being considered was to add or delete vaccinations according to the prevailing situation and to extend coverage against diseases with the higher incidence.

There were more births last year—42,549, among them 15,895 nationals,—than in 1981, with a birth rate of 3.73 per cent. The highest number was recorded in Dubai—11,257, followed by Abu Dhabi where 10,788 children were born. But infant mortality was also greater (13.9 per cent against 1981's 10.5) and there were more still births. This, however,

was partly attributable to a better reporting system under which the registration of births and deaths, some of which previously went unreported, was made more effective.

Since 96 per cent of all births take place at the country's hospitals, attendance at MCH centres remained more or less static. The report said most mothers preferred to take antenatal care at the hospitals of delivery. A factor qualifying children's attendance was the continuation of the home visits programme. Even so, attendances at MCH centres totalled 138,111 during 1982.

An important aspect of preventive medicine is periodic screening and immunisation of food handlers, under the environmental health programme. Of the 20,149 cases examined during 1982, 4,570 were found to be 'positive' bearing different types of intestinal parasites. Food handlers were routinely immunised against enteric fever while 287,224 doses of TAB vaccine were administered. Over 41,000 clearance certificates were issued in all districts.

**Budgetary allocation**

The departmental report said while the budgetary allocation for the health sector was increased last year by 30 per cent to a record high of 1.258 billion dirhams, all the increase had been utilised on development of curative medicine projects. Preventive medicine in fact was given less to spend. This relative lack of finance affected manpower, transport (especially mobile teams), expansion in physical facilities, equipment and supply, the report said. It gave the example of the decrease in the number

of doctors and technical staff in school health. While there were 111 doctors in 1981, last year this had declined to 101; technicians fell from 312 to 291. It said the lack of a separate allocation for preventive health had created a situation that needed to be quickly rectified so that the department could better meet its responsibilities.

The department has been studying the immediate and long-term needs of further developing preventive care. Of the many studies and plans made, one major scheme has been to develop primary health care services suited to the particular needs of the country. But budgetary strictures have not made realisation possible yet.

The report finally said the importance of registration, data collection

and feedback in evaluating and planning health care delivery was now generally recognised as a matter of priority by all departments of the ministry. Federal policy makers have become aware of the need for a standardised system of registration and feedback and several positive steps were being taken to bring this about.

CSO: 5400/4511

VIETNAM

MALARIA COUNTERMEASURES SUCCEEDING IN NGHIA BINH PROVINCE

Hanoi QUAN DOI NHAN DAN in Vietnamese 1 Dec 83 p 3

[Article: "Positive Anti-Malaria Preventive Measures Taken at Ba To District in Nghia Binh Province"]

[Text] The mountainous Ba To District lies in the malaria infested region of Nghia Binh Province where 25.4 percent of the population is believed to carry malaria parasites. During the last 3 years, thanks to the sound application of preventive and curative anti-malaria measures, malaria epidemics no longer occurred anywhere in the district. During the two successive years 1981-1982, no person in Ba To could be found with malaria parasites.

Each year more than 21 tons of DDT were used to spray mosquitoes in every village, from two to three times a year, and more than 2 million malaria pills were given to the district population. Good management and treatment were given to malaria patients. Environmental hygiene operations were encouraged. Applying village hygiene, 80 percent of households have moved farm animals away from their living quarters. Thanks to good treatment management of malaria patients and to the application of preventive hygiene measures, no malaria epidemic has occurred during the last 4 consecutive years in the villages of Ba Thanh, Ba Dinh, Ba Vi, and Ba To.

9320

CSO: 5400/4379

MALARIA OUTBREAK REPORTED ON COPPERBELT

Lusaka TIMES OF ZAMBIA in English 10 Jan 84 p 5

[Text]

AN outbreak of malaria has been reported on the Copperbelt where some hospitals and clinics are treating 30 cases a day.

Copperbelt Province medical officer Dr Vinayak Ganu yesterday confirmed the increase and advised residents to keep their surroundings clean to avoid mosquitoes breeding there.

Dr Ganu said a meeting of malaria experts held in Ndola recently expressed concern at the many cases being attended to at hospitals and clinics.

Statistics on the situation were being compiled and would be sent to his office at the end of the month.

Dr Ganu said reports on the outbreak took time to be compiled and forwarded to the provincial headquarters.

Ndola Central Hospital

senior medical superintendent Dr Frank Assanah said many malaria patients had been attended to at the institution.

Although Dr Assanah could not give exact figures the register at the outpatients wing showed at least 30 people attended hospital with malaria complaints everyday.

But Dr Assanah attributed the increase in malaria to the rain season which he said was the time when many people suffered from the disease.

"Normally at this time of the year there is a large number of cases of malaria. We cannot say it is an outbreak because this is the time when there are a lot of mosquitoes."

Kamuchanga Hospital in Mufulira and Thomson Hospital in Luanshya also recorded a high number of malaria patients since January 1.

CSO: 5400/66

## BRIEFS

FOUR MALARIA DEATHS--Four patients died at Moyo Rural Health Centre in Chomas last week following the failure by the institution to provide them with recommended drugs for malaria fever. According to an official at the centre, the institution had only four small injection bottles of Benzyl Penicillin which is not recommended for malaria. The official said most patients were always referred to Choma Hospital and those without transport were just discharged to go and receive local treatment from traditional doctors. But on Tuesday, Choma medical superintendent, Dr Om Jhamb said that the hospital had sent chloroquine tablets to Moyo Health Centre to help ease the situation. Dr Jhamb said despite the hospital not having sufficient drugs to supply to 43 rural health centres in the district, his office was more concerned about the situation at Moyo where the shortage was critical. He said the shortage of drugs was not only affecting Moyo Rural Health Centre alone. [Text] [Lusaka DAILY MAIL in English 13 Jan 84 p 5]

CSO: 5400/71

CHOLERA CONTROL ROADBLOCKS, CHECKPOINTS ESTABLISHED

Bulawayo THE CHRONICLE in English 5 Jan 84 p 5

[Text] Two people died at Birchenough Bridge Rural Hospital on New Year's Day and four others died during the holiday period in the surrounding rural areas from what hospital officials call cerebral malaria.

A hospital spokesman said the symptoms of the disease were sudden headaches and diarrhoea.

Asked whether this could be cholera, since there was a cholera outbreak reported in the area, she said there were similarities between the reported cases and cholera.

Reports from people travelling from Chipinge and Mutare confirmed that the army, police and health officers had mounted cholera control roadblocks and check-points, the main one being at the Tanganda turn-off near Birchenough Bridge.

Travellers were asked to leave behind all edibles they had brought. Those manning the roadblocks explained this was a preventive measure against cholera which had been reported in the area.

The commuters were advised to be careful over whatever edibles they intended to take but preferably leave untinned food altogether.

A Government health inspector in Chipinge was reportedly busy throughout the Christmas and New Year holidays monitoring cholera control and check-points in the area.

A nursing sister at St Peter's Hospital, near Chisumbanje, said that there had been a number of cholera admissions at the hospital during December. She added that the medical control team based at the centre carried out regular cholera check-ups in the area.

Easily discernible symptoms of cholera were vomiting and diarrhoea, said a nursing sister at the hospital.

Local government officials in Chipinge also confirmed there had been several cholera cases in the area but could not say how many people had died from the disease or define the areas affected.--Ziana.

CSO: 5400/68



## INDONESIA

### BRIEFS

RABIES IN RIAU--Jakarta, Jan 18 (AFP)--Nearly all of the 354 people bitten by dogs or other animals in the past three months in Pekanbaru, capital of Riau Province, have been found to be positive rabies carriers, ANTARA news agency reported today. Ninety percent have been affected by the disease, the report said. It did not mention any fatalities. To cope with the situation, the municipal administration has set up centres for emergency treatment of bite victims. The town health service also has vaccinated some 5,000 dogs and killed hundreds of ownerless ones. [Text] [Hong Kong AFP in English 0823 GMT 18 Jan 84 BK]

CSO: 5400/4386

MALAWI

BRIEFS

RABID DOGS--A new campaign against rabid dogs in Blantyre City townships started yesterday. Several people have been bitten by dogs subsequently found to have been rabid, and a veterinary official described the problem as serious. The latest tie-up order affects 12 townships. The official warned the dogs found roaming free in the townships during the dates of the campaign will be shot. [Excerpt] [Blantyre DAILY TIMES in English 20 Dec 83 p 1]

CSO: 5400/69

## NETHERLANDS

### BRIEFS

SWINE FEVER OUTBREAK--Winterswijk, 10 Jan--Swine fever has broken out on a farm in Aalten, near the West German border, an Agriculture and Fisheries Ministry spokesman confirmed today. He said all the farm's 1,000 pigs had been destroyed during the weekend and a transport ban had been lowered on a two-kilometre radius around the farm. The spokesman did not rule out that the contagious disease might have come from neighbouring German territory, where swine fever is currently appearing on a large scale. Swine fever appeared last in Holland in the spring of 1983, also in the eastern province of Gelderland. Agricultural Minister Gerrit Braks, who was to discuss the problem with common market counterparts in Brussels today, said a proposal for stiffer control measures was under consideration. [Text] [The Hague ANP NEWS BULLETIN in English 10 Jan 84 pp 4-5]

CSO: 5400/2513

## NIGERIA

### BRIEFS

LIVESTOCK INOCULATED--The Secretary of Sokoto State Green Revolution Co-ordinating Committee, Dr. Folosu Fasanmi, said in Sokoto on Thursday that six million livestock and 900,000 chicks were inoculated against various diseases last year. He told the News Agency of Nigeria (NAN) that over 800,000 domestic animals were also inoculated against endemic diseases and that 600,000 eggs, 40,000 day-old-chicks and 6,000 broilers were produced. [Excerpt] [Kaduna NEW NIGERIAN in English 27 Dec 83 p 16]

CSO: 5400/70

ST CHRISTOPHER - NEVIS

BRIEFS

UK AID FOR CATTLE DISEASE--Cattle in St. Kitts and Nevis have become stricken with the highly contagious skin disease dermatophilosis, which is spread by ticks and flies and leads to emaciation, secondary infection and eventually death. Cattle farmers in the newly Independent State are losing valuable revenue because even slightly infected cattle cannot be sold either for meat or hide, and future livestock production is being threatened. To help combat this disease Britain is to provide some EC\$1.2 million for the construction of dipping tanks and handling facilities at strategic points in the two islands, and for the purchase of chemicals. Farmers will be expected to dip their cattle regularly to help eradicate the disease.

[Text] [Basseterre THE DEMOCRAT in English 17 Dec 83 p 5]

CSO: 5400/7525

JAMAICA

BRIEFS

COCONUT DISEASE--Burnt Savannah The coconut growers living in Burnt Savannah, St. Elizabeth are anxious to see officers from the Ministry of Agriculture to report to them the coconut diseases which are destroying their coconut trees here. Farmers and residents here are in great fear of what will happen to the young coconut trees. TThe farmers say that spraying of the trees would help to keep away the disease. Growers say they fear that the plants will be overtaken with the disease if they do not benefit from a regular schedule of spraying. [Text] [Kingston THE DAILY GLEANER in English 7 Jan 84 p 3]

CSO: 5400/7524

PADDY VIRUS PERSISTS, COULD SPREAD UNLESS BROUGHT UNDER CONTROL

Kuala Lumpur BUSINESS TIMES in English 30 Dec 83 p 2

[Text]

THE red virus disease affecting padi in the country has not been brought under control and can spread unless more effective preventive measures are taken, a seminar on the disease in Kangar was told.

The director of crop protection of the Agriculture Department, Encik Talib Majid, said that while the campaign against the disease had resulted in a general reduction of the areas affected the disease was on the upsurge in the Muda area.

He said on Wednesday that 8,615 hectares in the Muda area were affected so far this year compared with 6,003 hectares last year.

The disease had also spread from Krian to Sungai Manik and central Perak, involving 2,200 hectares, and had been detected in about 40 hectares in the Pasir Mas district.

Encik Talib said that a study on the campaign against the disease showed that many farmers still lacked understanding of factors leading to the spread of the disease and ways of controlling it despite provision of training and information.

"Many do not realise the danger posed by the disease to other padi areas and to the nation's economy," he added. — Bernama

BRIEFS

RUBBER TREE FUNGUS--Besut, Sun.--Hundreds of acres of rubber trees are believed to have been hit by an outbreak of a leaf decay disease (phythophthora) caused by the phythophthora palmivora fungi. The disease has caused the trees to shed leaves and bear smaller seeds. The 21.27-hectare rubber plantation owned by the Rubber Research Institute (RRI), about 18km from Jertih, is among those badly affected by the outbreak, a RRI spokesman said. He said the disease was first detected in the district last November. Aided by rain and the absence of sunshine, it quickly spread to other areas. "However, the RRI is attempting to combat the disease by spraying a solution known as difolatan," he said. [Text] [Kuala Lumpur NEW STRAITS TIMES in English 2 Jan 84 p 5]

CSO: 5400/4381



ARMYWORMS SPREAD CROP DESTRUCTION TO TANGA, COAST REGIONS

Dar es Salaam DAILY NEWS in English 16 Jan 84 p 3

[Text] Armyworms, which early this month were reported destroying crops in Dodoma, Morogoro, Mtwara and Lindi regions, have now spread to Tanga and Coast regions.

Quoting information from authorities in the affected areas, pest control co-ordinator based at Tengeru, Ndugu Albert Mushi, said over the weekend that the outbreaks were alarming. Several thousand hectares of crops had already been destroyed, he added.

Budding crops, notably paddy, sorghum, maize, bulrush and other cereals were being destroyed. There were also fears of fresh armyworm outbreaks, according to Ndugu Mushi.

He urged regional authorities in the affected regions to liaise with the Ministry of Agriculture to get spray drugs, equipment, vehicles and personnel.

Ndugu Mushi said the Ministry of Agriculture had already informed the Nairobi-Based Desert Locust Control Organisation for Eastern Africa (DLCOEA) of the outbreak. He said the organisation had placed a spray aeroplane in Nairobi ready for action.

Fenitrothin drug for killing the pest had been made available from Nairobi and he appealed to regions with shortfall of the drug to send urgent orders to Tengeru.

The coordinator said the pests had caused havoc to thousands of hectares of crop in Kondo District. Earlier, outbreaks reported in Dodoma Rural and Dodoma Urban Districts have been wiped out.

The armyworms have destroyed budding crops in Nagaga, Nanganga Namajaro, Lionje, Kitere, Kiwani, Lulindi, Nachingwea and Tunduru in Mtwara and Lindi regions.

The most seriously hit areas in Morogoro region are Kilosa and Morogoro Districts. In Tanga, pests are in Mlingano, while Bagamoyo district in the Coast region is affected.

CSO: 5400/72

TANZANIA

BRIEFS

ARMYWORMS INVADE SIX REGIONS --Dar-es-Salaam.--Army worms which have invaded six Tanzanian regions are reported to be causing alarming destruction to crops. The affected areas have been asked to coordinate with the Central Ministry of Agriculture to help combat the menace. The official Shihata news agency yesterday quoted the co-ordinator of the Arusha-based Pest Control Unit in northern Tanzania, Mr Albert Mushi, as saying that the Desert Locust Control Organisation of Eastern Africa in Nairobi had been alerted and asked to keep its spraying planes ready for action in Tanzania. The army worms--a form of caterpillar--have hit Dodoma, Morogoro, Mtwara and Lindi districts and are now spreading to Tanga and coast regions. Several thousands hectares planted with cereal crops are reported to have already been destroyed in those areas.--ZANA/AFP [Text] [Lusaka DAILY MAIL in English 17 Jan 84 p 3]

CSO: 5400/71

END